DOCUMENT RESUME

ED 169 418 CG 013 348

AUTHOR Kim, Moonja Park; Rosenberg, Seymour
TITLE Evaluation, Potency and Activity (EPA): Dimensions of Implicit Personality Theory?
PUB DATE Aug 78
NOTE 20p.; Paper presented at the Annual Convention of the American Psychological Association (86th, Toronto, Ontario, Canada, August, 1978); Best copy available.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS College Students; *Evaluation Methods; *Individual Characteristics; *Perception; *Personality Assessment; *Personality Theories; Research Projects; Response Mode; Semantic Differential; *Systems Approach

ABSTRACT

The adequacy of the evaluation, potency, and activity (EPA) system as a scheme for the dimensions of an individual's implicit personality theory was tested using two methods. In the free-response method, each subject described himself and a number of people known to him using trait terms of his own choice; in the other method, each subject used a common set of traits from a list provided by the investigators. The results show that: (1) evaluation is the only strong dimension underlying personality perception for most of the subjects; (2) activity exists in only a few subjects' perceptions; and (3) orthogonality among evaluation, potency, and activity was not found on an individual level, but rather was produced from the aggregation of data across individuals. Also, as expected, such orthogonality is more likely to emerge with a provided list of traits than with a free-response list. (Author)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED169418
BEST COPY AVAILABLE

EVALUATION, POTENCY AND ACTIVITY (EPA): DIMENSIONS OF IMPLICIT PERSONALITY THEORY? **

Moonja Park Kim and Seymour Rosenberg

ABSTRACT

The adequacy of the EPA system (evaluation, potency and activity) as a scheme for the dimensions of an individual's implicit personality theory was tested with personality descriptions from a free-response method and from a list of traits provided by the investigators. In free-response method, each subject described himself and a number of people known to him using trait terms of his own choice; in the provided list, each subject used a common set of traits. The results show that E is the only strong dimension underlying personality perception for most of the subjects; : and A exist only in a few subjects' perceptions. Orthogonality among E, P, and A was not found on an individual level, and seems to be produced from the aggregation of data across individuals. Also, as expected, such orthogonality is more likely to emerge with a provided list of traits than with a free-response list.

** Presented at the 86th Annual Convention of American Psychological Association, August, 1978.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

M P Kim

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CG 013348

EVALUATION, POTENCY AND ACTIVITY (EPA): DIMENSIONS OF IMPLICIT PERSONALITY THEORY?

Moonja Park Kim and Seymour Rosenberg

What are the important dimensions in an individual's "implicit personality theory?" What are the relations among these dimensions?

An individual's "implicit personality theory" (IPT) refers, here, to his everyday beliefs about personality. This belief system includes the traits that he perceives as characteristic of himself and others, such as intelligent, friendly, attractive, and his beliefs about the interrelations among these traits.

The three semantic factors of evaluation, potency, and activity--EPA--have provided one interpretive scheme for the dimensions of an individual's implicit personality theory and the relations among these dimensions. These factors have been found in personality differential studies (Kuusinen, 1968, 1969; Osgood, 1962; Osgood, May & Miron, 1975; Tzeng, 1975) and in studies of personality-trait descriptions (Mulaik, 1964; Peterson, 1965; Rosenberg, Nelson & Vivekananthan, 1968; Rosenberg & Olshan, 1970).

In searching for the basic dimensions of IPT, the representativeness of the traits used by the subject has to be considered. In the studies cited above that have supported the EPA model, the trait scales and trait lists provided to the subjects have either been fortuitously

selected by the investigator and/or have deliberately included scales previously identified as representative of evaluation, potency, and activity. Traits selected by the investigator may not be representative of the traits used by the subject in everyday life. The resulting dimensions may thus reflect the trait-sampling biases of the investigator.

While the semantic differential model has been supported in the studies using traits supplied by the investigator, it has not held up as well in the studies using free-response methods, that is, where the subject uses his own trait vocabulary to describe people. In a study by Rosenberg and Sedlak (1972a), for example, the EPA system did not provide an adequate interpretation of the trait structure obtained from free-response personality descriptions. Evaluation and potency were found, but these two dimensions were not orthogonal; the activity dimension was not found.

Furthermore, in all the studies cited above, the trait space was obtained from data aggregated across subjects. Aggregated data may not reveal the structure of the individuals comprising the group. The individuals may not share the same dimensions; for example, some individuals may use one or more dimensions that other individuals do not use. Or the individuals may weigh dimensions differently even when all share the same dimensions. Thus, an analysis based on aggregated data may be describing the structure of no particular person at all.

In the studies of Wiggins & Fishbein (1969) and Shikiar, Fishbein & Wiggins (1974) using similarity judgments among 15 scales representing EPA, the group space of scales showed a typical EPA structure, but subgroups of individuals perceived the semantic space differently. The results of these studies suggest that the three-dimensional EPA system could be an artifact produced from aggregation.

The purpose of the present study is to test, at the individual level, the validity of the EPA model for implicit personality theory. The study is concerned with whether all three dimensions are present in an individual's protocol and, if so, with whether they are orthogonal dimensions.

METHOD

SUBJECTS

Twenty students, ages 20 to 24 years, from a summer course in introductory psychology at Rutgers University served as subjects (Ss). The Ss were randomly assigned to the free-response group (F-group) and common-trait group (C-group). The same number of male and female Ss were assigned to the two groups. Each S was paid $36.00 for his participation in this study. By prior agreement, a S was paid this lump sum only if he completed his commitment to the study.

The Ss spent a total of 10 to 15 hours in this experiment over a one- to two-week period. Any one session lasted from one to three hours.

Procedures

I. Free-response method.

The free-response method used in this study is adapted from the method described by Rosenberg (1976).

First, each S listed at least 100 people from his life. To facilitate this task and to provide a balanced sample, The Ss were provided with a seven-page booklet. Each page of the booklet was headed with one of the following categories:

1. All persons in a household during childhood and adolescence.

2. All persons who were close or intimate -- in the past but not present.
3. All persons you knew well but were not close or intimate -- in the past but not present.
4. Persons who are close or intimate -- in the present.
5. Persons you know well but are not close or intimate -- in the present.
6. Current acquaintances known at least one year (limit 25).
7. Persons known by reputation only (limit 10).

Each S described 35 people who were selected to include all persons in the first category and a stratified random sample of persons in the remaining six categories. In addition to the 35 people, each S described four different selves: "present self," "past self," "positive ideal-self," and "negative ideal-self."

Before systematically describing any of the people on the list, each S prepared a "started list of traits," by considering 20 people which were different from the 35 people selected. Each S recorded the first five traits or phrases that came to mind for each of these 20 people. These traits or phrases, with duplicates removed, constituted the starter list.

The descriptions were collected on a computer terminal tied to the Rutgers University time-sharing system. The

computer program does the following: 1) presents the S with his randomized list of persons, one person at a time; 2) presents for each person, the randomized starter list of traits, one trait at a time; 3) records the S's judgment of how well each trait describes a given person on a 3-point scale (0, 1 or 2); 4) adds any new term at any time that the S wishes; 5) re-presents the persons already described for judgment on new added traits. Thus the computer eventually contains a Person × Trait matrix for each S with the entries of 0, 1 or 2 in each cell of the matrix.

II. Common-trait method.

Procedures for this part of the study were almost identical to the free-response personality description procedures. The major difference is that the S did not make a starter list of traits; rather, a list of traits provided by the investigators was presented for the trait judgments of each person on the S's person list. The S was also not allowed to add any new terms.

III. Property Ratings.

After the trait descriptions were completed, each S rated the people described by the S as well as the traits used by the S to describe the people. Ratings were obtained on each of the following 9 scales:

Evaluation: (1) good - bad; (2) pleasant - unpleasant; (3) fair - unfair:

Potency: (4) strong - weak; (5) hard - soft; (6) dominant - submissive.

Activity: (7) active - passive; (8) energetic - physically inactive; (9) excitable - calm.

Examples of the instructions for the ratings of traits and of people are shown in Figure 1.

RESULTS

Ratings of people on the 9 representative properties of EPA were first factor analyzed. This type of analysis is most similar to the studies of the personality differential. The weighted average correlation matrix for the 9 properties across the 20 subjects were factor analyzed. The resulting factor loadings showed a factor structure very similar to those found by Kuusinen (1969) and Tzeng (1975) in their personality differential studies.

However, in order to examine the relations among E, P and A on the individual level, the correlations among them were obtained as shown on Table 1. The three χ^2's shown in Table 1 were obtained to test the homogeneity of the r's, and all three χ's are significant beyond the .001 level. For example, the correlations between E and P range from -.34 to + .50 and the average correlation of .02 in the last row of Table 2 is quite misleading as an estimate of the relation between these two dimensions. Thus, the factor structure obtained from aggregated data is quite misleading about single individuals.

The results from the trait ratings are similar to those from people ratings. Factor analyses of the average correlations from 10 Ss in each group showed three factors that correspond to E, P and A. However, the correlations on the individual level are very heterogeneous as shown in Table 2. It is also interesting to note that average

correlations between E and P, E and A for the free-response group are .20 and .32, while those for Common-trait group are .08 and .06; that is, orthogonality among factors for group data is more likely to emerge with an investigator-selected vocabulary. Again, the analyses of trait ratings indicate that orthogonality does not necessarily reflect individual structure but is the result of aggregation.

A third analysis involved the Person × Trait matrix of judgments. From this matrix, a profile distance measure was calculated for each pair of traits which reflect how closely they are related (Rosenberg and Jones, 1972). This profile distance matrix for traits was used as input for multidimensional scaling (Kruskal, 1968) which in turn produced a spatial configuration of the traits for each S. The three-dimensional configurations seemed to be optimal. Then, for each S, the E, P and A ratings were fitted to each S's three-dimensional trait space, using multiple regression.

The resulting multiple R's which reflect goodness-of-fit of the three sets of ratings are shown in Table 3. The multiple R's for E are highly significant for all Ss, while those for P and A are much lower. The χ^2's show that the multiple R's are very heterogeneous across the individual Ss.

For 8 subjects: F1, F5, F6, F7, F9, C4, C5 and C8, all of E, P and A fit well in their trait spaces. However,

except for three of these subjects: F9, C4 and C5, the simple correlations between E and P and/or E and A in Table 2 are highly significant. That is, the presence of P and/or A in an individual's trait space may be due, in part, to the fact they are highly correlated with E. For these three Ss, the angles between E and P are 74°, -78°, and -74°, and between E and A are 70°, -52°, and -76°, and between P and A are 4°, 30°, and 10°. Therefore, orthogonality among E, P and A was not present.

In summary, analyses of people ratings, trait ratings and multidimensional trait spaces all showed that EPA model does not adequately describe the dimensions of individual's implicit personality theory. All 3 dimensions of E, P and A were present only in three Ss' trait spaces, and they were not orthogonal to one another. Therefore, the EPA model may not be accepted as a general model to represent the content and structure of implicit personality theory.

An alternative model to describe the basic content and structure of IPT is sketched below. The model is multidimensional in that it assumes the existence of a "core" dimension--evaluation--with additional dimensionality resulting from the differentiation of evaluation into a set of non-orthogonal content areas, such as intelligence, sociability, maturity, psychological stability, etc. The model for two dimensions may be represented diagrammatically as shown in Figure 2. A, B, C and D refer to different

content areas and the length of a line associated with a particular content may be used to represent the degree to which this content is present in a single individual. The angle between any two lines represents the interrelation between two content areas for any given individual. In three dimensions, the different lines form two cone-like shapes whose tips touch at the origin. Preliminary tests of this alternative model is described in Kim (1977).

INSTRUCTIONS - PERSON RATINGS

On the attached sheet is the list of persons that you described.

Please make an overall rating of the person according to how GOOD the person is. In making your ratings use the following scale:

GOOD : 1 : 2 : 3 : 4 : 5 : 6 : 7 : BAD

Put the number to the left of the person's name on the line provided.

INSTRUCTIONS - TRAIT RATINGS

On the attached sheet are the traits that you used to describe the persons on your list.

Please rate each of the traits according to whether a person who exhibited such a trait would be GOOD or BAD. In making your ratings use the following scale:

GOOD : 1 : 2 : 3 : 4 : 5 : 6 : 7 : BAD

Put the number to the left of the trait name on the line provided.

Figure 1

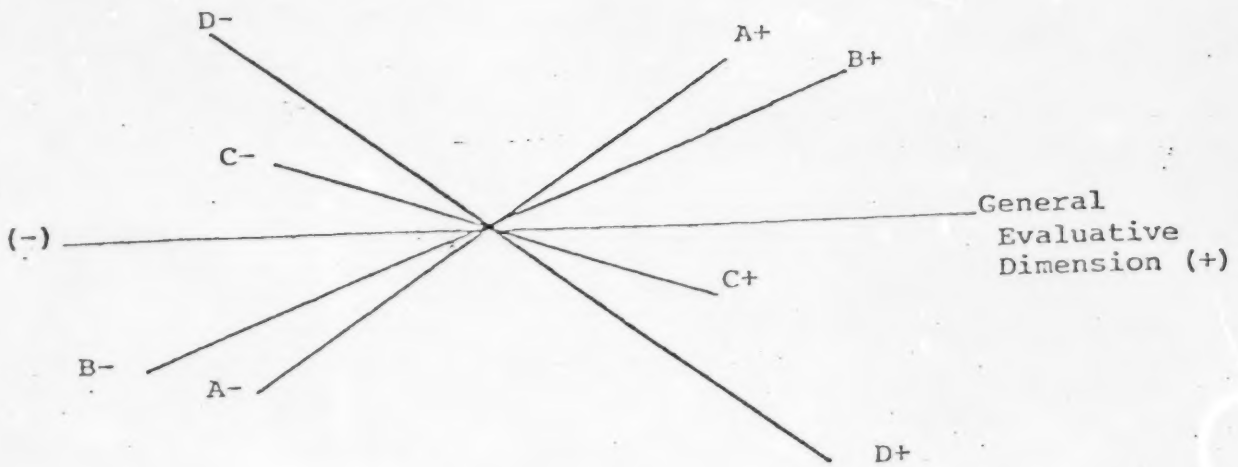

Figure 2. Alternate Model of Implicit Personality Theory. A, B, C, D refer to different content areas such as intelligence, sociability, maturity, and so on (see Table 2).

TABLE 1

CORRELATIONS AMONG E, P, AND A
OBTAINED FROM PROPERTY RATINGS OF PEOPLE

SUBJECT	BETWEEN E & P	BETWEEN E & A	BETWEEN P & A
F1	.11	.45**	.45**
F2	.10	.32*	.51**
F3	-.02	.02	.36*
F4	-.20	-.26	.28
F5	-.08	.13	.51**
F6	-.07	.12	.39*
F7	.07	.41**	.45**
F8	-.25	.21	.48**
F9	-.34*	-.02	.61**
F10	.47**	.41**	.33*
C1	-.33*	.07	.47**
C2	.12	.52**	.37*
C3	.50**	.51**	.88**
C4	.04	.42**	.51**
C5	-.20	-.26	.28
C6	.20	.16	.40**
C7	-.02	.26	.51**
C8	-.13	-.11	.75**
C9	.21	-.07	.32*
C10	.14	-.25	.15
χ^2 (Homogeneity of r's)	39.68**	51.76**	48.46**
WEIGHTED AVERAGE (both groups)	.02	.16	.51

* P<.01
** P<.001

TABLE 2

Correlations among EPA Obtained from Averaged Ratings of Traits

Subject #	Between E & P	Between E & A	Between P & A
Free-Response Group			
F1	.44*	.38**	.68**
F2	.08	.28*	.70**
F3	-.02	.40**	.62**
F4	-.02	.10	.31*
F5	.60**	.25	.67**
F6	-.34*	.08	.55**
F7	.51**	.57**	.53**
F8	.25	.27	.29*
F9	.26	.22	.69**
F10	.06	.39**	.20
χ^2 (Homogeneity of r's)	109.2**	35.67**	38.14**
Average r	.20	.32	.54
Common-Trait Group			
C1	-.21	-.21	.30*
C2	.08	.37**	.29**
C3	.59**	.26*	.35**
C4	.09	-.13	.49**
C5	.19	-.10	.32**
C6	-.25*	.05	.03
C7	.13	.04	.54**
C8	.46**	.21	.57**
C9	-.33**	.05	.19
C10	.07	.04	.24*
χ^2 (Homogeneity of r's)	62.62**	18.71	45.57**
Average r	.08	.06	.33

* . $p<.01$
** $p<.001$

TABLE 3

Multiple Correlations between Multidimensional Trait Space and Averaged EPA Ratings for each Individual

Subject #	# of Traits	Evaluation	Potency	Activity
Free-Response Group				
F1	93	.94***	.64***	.50**
F2	84	.88***	.39	.46**
F3	97	.82***	.35	.55***
F4	71	.81***	.44*	.39
F5	68	.89***	.75***	.56**
F6	63	.77***	.52**	.51**
F7	85	.76***	.64***	.71***
F8	73	.82***	.44	.23
F9	63	.87***	.59**	.46**
F10	95	.83***	.36	.52**
χ^2 (Homogeneity of R's)		25.15*	25.26*	19.20
Common-Trait Group				
C1	119	.75***	.58***	.36
C2	117	.89***	.12	.40*
C3	119	.88***	.71***	.25
C4	118	.81***	.75***	.56***
C5	119	.87***	.65***	.39*
C6	119	.54***	.66***	.15
C7	119	.79***	.40	.26
C8	119	.79***	.75***	.65***
C9	119	.57***	.59***	.20
C10	110	.73***	.37	.30
χ^2 (Homogeneity of R's)		82.24***	65.04***	22.00*

* $p<.01$
** $p<.001$
*** $p<.0001$

References

Kim, M. Dimensions of Personality Perception. Unpublished doctorial dissertation, Rutgers University, 1977.

Kruskal, J. B. How to use MDSCAL, a program to do multidimensional scaling and multidimensional unfolding, Bell Telephone Labs, Murray Hill, N.J., 1968.

Kuusinen, J. Affective and denotative structures of personality ratings. Journal of Personality and Social Psychology, 1969, 12, 181-188.

Kuusinen, J. Factorial invariance of personality ratings. Unpublished manuscript, Center for Comparative Psycholinguistics, University of Illinois, 1968.

Mulaik, S. A. Are personality factors raters" conceptual factors? Journal of Consulting Psychology, 1964, 28, 506-511.

Osgood, C. E., May, W. H., & Miron, M.S. Cross-Cultural Universals of Affective Meaning, Urbana: University of Illinois Press, 1975.

Osgood, C. E. Studies on the generality of affective meaning systems. American Psychologist, 1962, 17, 10-28.

Peterson, D. R. Scope and generality of verbally defined personality factors. Psychological Review, 1965, 72 48-59.

Rosenberg, S. New approaches to the analysis of personal constructs in person perception. In J. Cole (Ed.), Nebraska Symposium on Motivation, Lincoln: University of Nebraska Press, 1976.

Rosenberg, S., & Jones, R. A method for investigating and representing a person's implicit theory of personality: Theodore Dreiser's view of people. Journal of Personality and Social Psychology, 1972, 22 372-386.

Rosenberg, S., Nelson, C. & Vivekananthan, P. S. A Multidimensional approach to the structure of personality impressions. Journal of Personality and Social Psychology, 1968, 9, 283-294.

Rosenberg, S. & Olshan, K. Evaluative and descriptive aspects in personality perception. Journal of Personality and Social Psychology, 1970, 16, 619-626.

Rosenberg, S. & Sedlak, A. Structural representations of perceived personality trait relationships. In R. A. Shepard, A. K. Romney & S. Nerlove (Eds.), Multidimensional Scaling: Theory and Applications in the Behavioral Sciences, Vol. II, Applications. New York: Seminar Press, 1972.(a).

Shikiar, R., Fishbein, M. & Wiggins, N. Individual differences in semantic space: A replication and extension. Multivariate Behavioral Research, 1974, 9, 201-210.

Tzeng, Oliver, C. S. Differentiation of Affective and Denotative Meaning Systems and their Influence in Personality Ratings. Journal of Personality and Social Psychology, 1975, 32, 978-988.

Wiggins, N. & Fishbein, M. Dimensions of semantic space: A problem of individual differences. In J. G. Snider & C. E. Osgood (Eds.), Semantic Differential Technique. Chicago: Aldine Publishing Co. 1969, 183-193.